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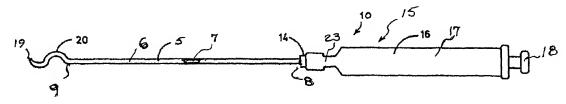
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(54) Title: HYDRODYNAMIC SUTURE PASSER



(57) Abstract: A hydrodynamic suturing instrument (10), comprising an elongated cannulated suturing needle (6) having a distal end configured to carry a suture (24) through tissue and a proximal end adapted to connect to a syringe barrel (17) and a lumen extending from said proximal end to an opening at the distal end for having a size for the passage of a suture, and the opening at the distal end configured to receive a suture extending from the lumen along an outer surface of the needle wherein a sharp point extends forward of the suture. A companion instrument (38) includes forceps having a distal end with jaws (42, 48) and a proximal end with a lumen extending from the proximal end to the distal end for passage of the needle, and the jaws having an opening enabling passage of the needle through tissue grasped in the jaws.

A3

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/21586

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US CL : 606/144, 146, 222, 224 According to International Patent Classification (IPC) or to both national classification and IPC				
B. FIELDS SEARCHED				
Minimum documentation searched (classification system followed by classification symbols) U.S.: 606/144, 146, 222, 224				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched				
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EAST: suturing needle, syringe, plunger				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category *	Citation of document, with indication, where a		Relevant to claim No.	
X	US 3,840,017 A (VIOLANTE) 08 October 1974 (08.10.1974), column 3, lines 17-39.			
 Y			39-40	
Y	US 5,562,683 A (CHAN) 08 October 1996 (08.10.1996), coulmn 19, lines 1-11.		39-40	
Α	US 4,224,947 A (FUKUDA) 30 September 1980 (30.09.1980), see Abstract of the Disclosure		1-40	
Further documents are listed in the continuation of Box C.  See patent family annex.				
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